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CLEAN VERSION

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Application No.: 10/533,946

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DESCRIPTION

Light Illuminating Apparatus

Technical Field

This invention relates to a light illuminating apparatus that may be applied with advantage to a laser annealing apparatus used, for example, for manufacture of a polysilicon thin film transistor.

The present application claims priority of Japanese Patent Application No.2002-321704, filed in Japan on November 5, 2002, the entirety of which is incorporated by reference herein.

Background Art

Recently, a polysilicon film of high carrier mobility has come to be used as a channel layer of a thin film transistor used, for example, for a liquid crystal display. The polysilicon film, used as the channel layer of the thin film transistor, is routinely manufactured by heat-treating amorphous polysilicon on a glass substrate by illuminating laser light thereon. The method for heat-treating an object by illuminating laser light thereon is termed laser annealing and an apparatus for carrying out the laser annealing is termed a laser annealing apparatus.

In producing a polysilicon film, laser annealing needs to be carried out with a laser beam having uniform energy strength along the beam diameter, in order to prevent thin film transistor characteristics from becoming worsened.